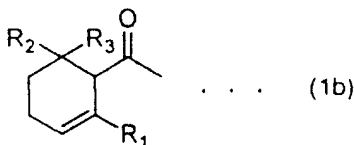


**AMENDMENTS TO THE CLAIMS**

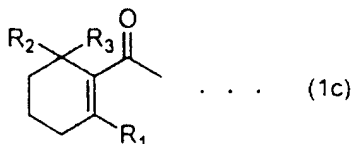
**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

1. (Currently amended): A process for producing a 2-cyclohexenyl methyl ketone represented by the following formula (1b):

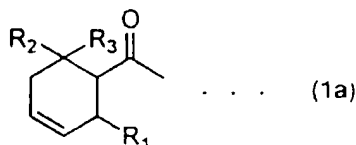


wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> each independently represents a hydrogen atom or a methyl group and at least two of R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> represent a methyl group, or a 1-cyclohexenyl methyl ketone represented by the following formula (1c):



wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> have the same meanings as defined above, or a mixture of the cyclohexenyl methyl ketones of the formulas (1b) and (1c), which comprises

isomerizing, in the presence of a catalyst, a 3-cyclohexenyl methyl ketone represented by the following formula (1a):



wherein, R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> have the same meanings as defined above, and

optionally distilling the mixture, wherein said catalyst is:

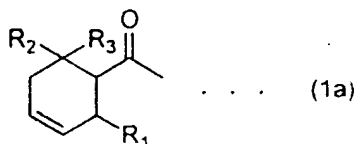
an acid catalyst; or

Cont - a basic catalyst, and wherein when said catalyst is said basic catalyst the isomerizing is conducted at a temperature of at least 100°C, wherein the basic catalyst is selected from the group consisting of potassium t-butoxide, potassium methoxide, sodium t-butoxide, sodium ethoxide, lithium t-butoxide, potassium hydroxide and sodium cyclohexylamide, and wherein the isomerizing is conducted in a solvent, and the solvent is selected from the group consisting of tetraethyleneglycol monomethyl ether, dimethyl sulfoxide, dimethylacetamide and cyclohexylamine..

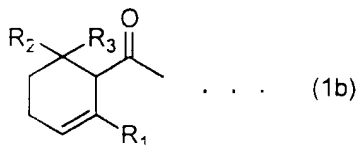
2. (canceled).

3. (canceled).

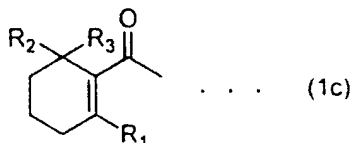
4. (Currently amended): A process of isomerizing, in the presence of a catalyst, a 3-cyclohexenyl methyl ketone represented by the following formula (1a):



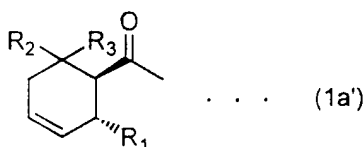
wherein  $R_1$ ,  $R_2$  and  $R_3$  each independently represents a hydrogen atom or a methyl group and at least two of  $R_1$ ,  $R_2$  and  $R_3$  represent a methyl group, into a 2-cyclohexenyl methyl ketone represented by the following formula (1b):



wherein  $R_1$ ,  $R_2$  and  $R_3$  have the same meanings as defined above, or a 1-cyclohexenyl methyl ketone represented by the following formula (1c):



wherein  $R_1$ ,  $R_2$  and  $R_3$  have the same meanings as defined above, or a mixture of the cyclohexenyl methyl ketones of the formulas (1b) and (1c) and (1a'), wherein the cyclohexenyl methyl ketone of formula (1a') is the following trans 3-cyclohexenyl methyl ketone of formula (1a'):

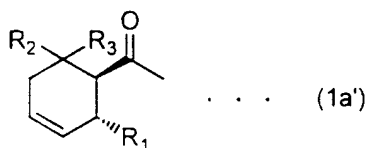


wherein  $R_1$ ,  $R_2$  and  $R_3$  have the same meanings as defined above, wherein said catalyst is:  
an acid catalyst; or

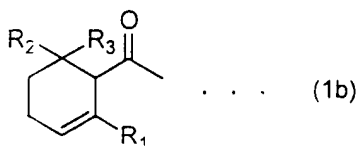
a basic catalyst, and wherein when said catalyst is said basic catalyst the isomerizing is conducted at a temperature of at least 100°C, wherein the basic catalyst is selected from the

group consisting of potassium t-butoxide, potassium methoxide, sodium t-butoxide, sodium ethoxide, lithium t-butoxide, potassium hydroxide and sodium cyclohexylamide, and wherein the isomerizing is conducted in a solvent, and the solvent is selected from the group consisting of tetraethyleneglycol monomethyl ether, dimethyl sulfoxide, dimethylacetamide and cyclohexylamine.

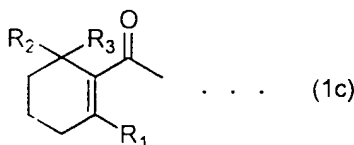
5. (Currently amended): A process for producing a mixture consisting essentially of a trans-3-cyclohexenyl methyl ketone of formula (1a'):



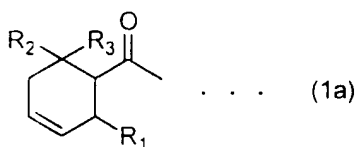
wherein R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> each independently represents a hydrogen atom or a methyl group and at least two of R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> represent a methyl group, a 2-cyclohexenyl methyl ketone of formula (1b):



wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> have the same meanings as defined above, and a 1-cyclohexenyl methyl ketone of formula (1c):



wherein  $R_1$ ,  $R_2$  and  $R_3$  have the same meanings as defined above, which comprises isomerizing, in the presence of a catalyst, a 3-cyclohexenyl methyl ketone represented by the following formula (1a):



wherein,  $R_1$ ,  $R_2$  and  $R_3$  have the same meanings are defined above, wherein said catalyst is:

an acid catalyst; or

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Cont.  
a basic catalyst, and wherein when said catalyst is said basic catalyst the isomerizing is conducted at a temperature of at least 100°C, wherein the basic catalyst is selected from the group consisting of potassium t-butoxide, potassium methoxide, sodium t-butoxide, sodium ethoxide, lithium t-butoxide, potassium hydroxide and sodium cyclohexylamide, and wherein the isomerizing is conducted in a solvent, and the solvent is selected from the group consisting of tetraethyleneglycol monomethyl ether, dimethyl sulfoxide, dimethylacetamide and cyclohexylamine.

Claims 6-14 (Canceled).

15. (Previously presented): A process according to claim 1, wherein said catalyst is said basic catalyst and the temperature of the isomerizing is from 100°C to 190°C.

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